Jan Delaval

Reference Librarian CM1 1E07 - 703-308-4498

jan delaval@uspto.gov

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 08:18:16 ON 17 JUL 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 17 Jul 2003 VOL 139 ISS 3 FILE LAST UPDATED: 16 Jul 2003 (20030716/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

L3

(FILE 'HOME' ENTERED AT 07:49:57 ON 17 JUL 2003) DEL HIS

FILE 'HCAPLUS' ENTERED AT 07:52:43 ON 17 JUL 2003

E WO2000-EP6139/AP, PRN

1 S E3, E4 L1SEL RN

FILE 'REGISTRY' ENTERED AT 07:53:38 ON 17 JUL 2003 67 S E1-E67 L2

FILE 'HCAPLUS' ENTERED AT 07:57:03 ON 17 JUL 2003

E BOVIN N/AU 225 S E3, E5-E15

E TUSIKOV A/AU

L41 S E4

E CHINAREV A/AU

L5 7 S E4-E8

E DICUSAR M/AU

L6 1 S E4

E GAMBARIAN A/AU E GAMBARIYAN A/AU

L7 1 S E4

E MARININA V/AU

11 S E4, E6 L8

230 S L3-L8 NOT L1 1.9

FILE 'REGISTRY' ENTERED AT 07:59:12 ON 17 JUL 2003

FILE 'HCAPLUS' ENTERED AT 07:59:12 ON 17 JUL 2003

SET SMARTSELECT ON

L10 SEL L9 1- RN : 1116 TERMS SET SMARTSELECT OFF

FILE 'REGISTRY' ENTERED AT 07:59:20 ON 17 JUL 2003

L11 1116 S L10

11 S 3392-07-2 OR 29248-48-4 OR 51513-80-5 OR 53546-95-5 OR 137125 L12

```
56 S L2 NOT L12
L13
           1108 S L11 NOT L2
L14
     FILE 'HCAPLUS' ENTERED AT 08:01:23 ON 17 JUL 2003
             47 S L13
L15
L16
              2 S L9 AND L15
                E TUZIKOV A/AU
             53 S E3-E10
L17
                E GAMBARYAN A/AU
L18
              47 S E3-E9
L19
             44 S L17, L18 NOT L9
L20
             44 S L19 NOT L1
     FILE 'REGISTRY' ENTERED AT 08:03:02 ON 17 JUL 2003
     FILE 'HCAPLUS' ENTERED AT 08:03:02 ON 17 JUL 2003
                SET SMARTSELECT ON
            SEL L20 1- RN : 109 TERMS
L21
                SET SMARTSELECT OFF
     FILE 'REGISTRY' ENTERED AT 08:03:04 ON 17 JUL 2003
            109 S L21
L22
L23
            109 S L22 NOT L2
L24
            107 S L23 NOT 11
     FILE 'HCAPLUS' ENTERED AT 08:03:22 ON 17 JUL 2003
L25
              2 S L17-L20 AND L15
              2 S L16, L25
L26
L27
             45 S L15 NOT L26
             42 S L27 AND (PD<=20000630 OR PRD<=20000630 OR AD<=20000630)
L29
             11 S L28 AND P/DT
L30
             10 S L29 NOT L1
L31
              31 S L28 NOT L29
              3 S L27 NOT L28
L32
        1090772 S L24
L33
     FILE 'REGISTRY' ENTERED AT 08:12:09 ON 17 JUL 2003
                SEL RN L22 100-109
             99 S L22 NOT E1-E10
L34
             98 S L34 NOT 99-35-4
L35
L36
              3 S L35 AND OC5/ES
     FILE 'HCAPLUS' ENTERED AT 08:13:51 ON 17 JUL 2003
                E US6310043/PN
              3 S E3
L37
                SEL RN
     FILE 'REGISTRY' ENTERED AT 08:15:09 ON 17 JUL 2003
L38
             46 S E1-E46
     FILE 'HCAPLUS' ENTERED AT 08:16:24 ON 17 JUL 2003
L39
               6 S L1, L16, L37
               6 S L39 AND L1, L3-L9, L15-L20, L25-L33, L37, L39
L40
L41
               6 S L40 AND L2, L11, L22, L38
     FILE 'HCAPLUS' ENTERED AT 08:18:16 ON 17 JUL 2003
=> d all hitstr tot 141
L41 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2003 ACS
     2001:792325 HCAPLUS
AN
DN
     135:313605
.TI
     Compounds, including saccharide compounds, for treatment of bacterial
```

ICS C12Q001-04 NCL 514025000

CC 1-5 (Pharmacology)

Section cross-reference(s): 33, 63

FAN.CNT 3

÷.

	PATENT NO.				KIND D		DATE	DATE			APPLICATION NO.				DATE				
ΡI	US	6310043			B1		20011030			U	s 19	99-3	1729	0	1999	0524	<		
	US	5962423			A		19991005			US 1998-130495					19980807				
	CA	2339198			AA		20000217			CA 1999-2339198					19990806				
	WO	2000008467			A2		20000217			WO 1999-CA725					19990806				
	WO	2000008467			A	3	2000	0706											
		W:	AU,	CA,	JΡ														
		RW:	AT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
	ΑU				A	1	20000228			AU 1999-51450					19990806				
	ΑU				B.	2	20021114												
	EΡ				A2 20010			0530		Ε	EP 1999-936219				19990806				
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,	
			·IE,	FΙ															
PRAI	US	US 1998-130495 US 1999-317290			A.	2	1998	0807											
	US				Α		1999	0524						•					
	WO	WO 1999-CA725			W		1999	0806										•	

AΒ Compds. which bind to toxins assocd. with enteric bacterial infection, compns. including the compds., methods for the neutralization of toxins in a patient, and methods for the diagnosis of bacterial and viral infections are disclosed. Toxins which can be bound by the compds. include pentameric toxins, for example SLTs (shiga-like toxins), such as those from Salmonella, Campylobacter and other bacteria, verotoxins from E. coli, cholera toxin, Clostridium difficile toxins A and B, bacterial pili from enteropathogenic E. coli and enterotoxigenic E. coli and viral lectins, such as viral hemagglutinins. The compds. include a core mol. bound to a plurality of linker arms, which in turn are bound to a plurality of bridging moieties, which in turn are bound to at least one, and preferably, two or more ligands which bind to the toxin. Examples of suitable ligands include di- and for trisaccharide moieties. tri-saccharide moieties themselves are active in binding to the SLTs. presence of a plurality of bridged dimers of the ligands is responsible for the increased binding affinity of the compds. relative to the ligands themselves. In one embodiment, the compds., when administered in a timely fashion to a patient suffering from enteric E. coli infection, inhibit progression of this infection into hemolytic uremic syndrome (HUS).

ST dendrimer oligosaccharide Prepn antibacterial; antibacterial bacterial toxin saccharide deriv prepn; bacteria virus infection diagnosis; Escherichia hemolytic uremic syndrome saccharide deriv

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(B, Clostridium difficile; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL

(Biological study) (Shiga-like toxin I; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Toxins RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (Shiga-like toxin II; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Toxins RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (Shiga-like toxin; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT Carbohydrates, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (aldaric acids; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Peptides, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (amino acids; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT Infection (bacterial, diagnosis; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT Toxins RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cholera; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Antibacterial agents Campylobacter Drug delivery systems Salmonella (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Toxins RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Dendritic polymers RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) TΤ Agglutinins and Lectins RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Amino acids, biological studies TΤ Disaccharides Monosaccharides Oligosaccharides, biological studies Trisaccharides RL: BSU (Biological study, unclassified); BIOL (Biological study) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Escherichia coli (enterotoxigenic; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IΤ Pilus (from enteropathogenic E. coli; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT Drug delivery systems (injections; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Fluorescent substances (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Enzymes, biological studies Radionuclides, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Drug delivery systems (oral; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Intestinal bacteria (pathogenic, pili from enteropathogenic E. coli; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Escherichia coli (pili from enteropathogenic E. coli; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Alcohols, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (polyhydric; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT Albumins, biological studies RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (saccharide derivs.; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (toxin A, Clostridium difficile; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT Clostridium difficile (toxins A and B; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΙT (viral lectin; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) TΤ 258873-66-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 79-06-1D, Acrylamide, derivs. 574-93-6D, Phthalocyanine, derivs. 12619-70-4D, Cyclodextrin, derivs. 13117-26-5D derivs. 54832-51-8D, derivs. 66580-68-5D, derivs. RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compds., including saccharide compds., for treatment of bacterial

infections, and prepn. thereof)

58-85-5 9013-20-1, Streptavidin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) ΤТ 244076-91-3P 244076-92-4P 244076-93-5P 244076-96-8P 244076-97-9P 244076-98-0P 244076-99-1P 244077-00-7P 244077-01-8P 244077-02-9P 244077-03-0P 244077-04-1P 244077-05-2P 244077-06-3P 244077-07-4P 244077-08-5P 244077-09-6P 258857-10-2P 258857-11-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) IT 98-88-4, Benzoyl chloride 100-39-0 106-95-6, Allyl bromide, reactions 107-15-3, 1,2-Ethanediamine, reactions 373-44-4, 1,8-Octanediamine 616-29-5, 1,3-Diamino-2-hydroxypropane 1125-88-8 2365-48-2, Methyl thioglycolate 5231-87-8 7693-46-1, 4-Nitrophenyl chloroformate 41110-63-8 63976-06-7 102674-58-8 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) THERE ARE 104 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 104 RE (1) Abbas, S; Sialic Acids Proc Japan-German Symp Berlin 1988, P22 (2) Akker, F; Protein Sci 1996, V5(6), P1184 (3) Altman, D; Practical Statistics for Medical Research, 1st ed 1991, P179 (4) Alvarez; US 5885577 1999 HCAPLUS (5) Amvam-Zollo; Carbohy Res 1986, V150, P199 HCAPLUS (6) Anon; WO 9308209 1993 HCAPLUS (7) Anon; WO 9510296 1995 (8) Anon; WO 9748711 1997 HCAPLUS (9) Anon; WO 9826662 1998 HCAPLUS (10) Aoi, K; Marcomolecules 1995, V28, P5391 HCAPLUS (11) Aqvist, J; J Biol Chem 1995, V270(17), P9978 MEDLINE (12) Aqvist, J; Protein Eng 1994, V7(3), P385 MEDLINE (13) Armstrong; US 5620858 1997 HCAPLUS (14) Armstrong; US 5679653 1997 HCAPLUS (15) Armstrong; Infect Immun 1987, V55, P1294 HCAPLUS (16) Armstrong; J Infect Dis 1991, V164, P1160 HCAPLUS (17) Ashton, P; Angewandete Chemie Int Ed Engl 1997, V36(7), P732 HCAPLUS (18) Boyd; Nephron 1989, V51, P207 MEDLINE (19) Brunton, J; The Bacteria, A Treatise on Structure and Function 1990, V11, P377 (20) Bundle; US 5962423 1999 HCAPLUS (21) Calderwood; Proc Natl Acad Sci (USA) 1987, V84, P4364 (22) Calva, E; Gene 1989, V75, P243 HCAPLUS (23) Chernyak, Y; Carbo Res 1984, V128, P269 (24) Cimolai; The Journal of Pediatrics 1990, V117, P676 (25) Cohen; J Biol Chem 1987, V262, P17088 HCAPLUS (26) Cox; Carbohy Res 1978, V62, P245 HCAPLUS (27) Dahmen, J; Carboh Res 1983, V118, P292 HCAPLUS (28) Dahmen, J; Carboh Res 1984, V127, P15 HCAPLUS (29) Degrandis; J Biol Chem 1989, V264, P12520 HCAPLUS (30) Dey, I; J Biomol Struct 1999, V16(4), P891 HCAPLUS (31) Ekborg, G; Carboh Res 1982, V110, P55 HCAPLUS (32) Fernandez-Santana, V; J Carboh Chem 1989, V8(3), P531 HCAPLUS (33) Frechet; US 5041516 1991 HCAPLUS (34) Fugedi, P; Glycoconjugate J 1987, V4, P97 HCAPLUS (35) Gannon; J Gen Microbiol 1990, V136, P1125 HCAPLUS (36) Garegg, P; Carboh Res 1985, V136, P207 HCAPLUS

- (37) Garegg, P; Carboh Res 1985, V137, P270 HCAPLUS
- (38) Gozzini; US 5807971 1998 HCAPLUS
- (39) Hansen; J Am Chem Soc 1997, V119, P6974 HCAPLUS
- (40) Hansson, T; J Computer-Aided Mole Design 1998, V12, P27 HCAPLUS
- (41) Hansson, T; Prot Eng 1995, V8(11), P1137 HCAPLUS
- (42) Head, S; FEMS Microbiol Lett 1988, V51, P211 HCAPLUS
- (43) Head, S; Infect Immunol 1990, V58, P1532 HCAPLUS
- (44) Hohenester, E; J Mol Biol 1997, V269, P570 HCAPLUS
- (45) Hol, W; Handbook of Natural Toxins 1995, V8, P185 HCAPLUS
- (46) Ito; Microb Pathog 1990, V8, P47 HCAPLUS
- (47) Jacewicz; J Exp Med 1986, V163, P1391 HCAPLUS
- (48) Jackson; Microb Pathog 1987, V2, P147 HCAPLUS
- (49) Jacquinet; J C S Perkin 1981, VI, P326
- (50) Kameyama; Carboh Res 1991, V209, Pc1 HCAPLUS
- (51) Karmali; J Clin Microbiol 1985, V22, P614 MEDLINE
- (52) Koike, H; Carbohydr Res 1987, V163, P189
- (53) Kolb, H; Bioorganic & Medicinal Chemistry Lett 1997, V7(20), P2629 HCAPLUS
- (54) Kolb, H; Chem Eur J 1997, V3(10), P1571 HCAPLUS
- (55) Lee; Carboh Res 1974, V37, P193 HCAPLUS
- (56) Lemieux; US 4137401 1979 HCAPLUS
- (57) Lemieux; US 4238473 1980 HCAPLUS
- (58) Lemieux; US 4362720 1982 HCAPLUS
- (59) Lemieux; J Am Chem Soc 1975, V97, P4076 HCAPLUS
- (60) Lindberg; J Biol Chem 1987, V262, P1779 HCAPLUS
- (61) Ling; Structure of the Shiga-like Toxin I B-Pentamer Complexed with an Analogue of Its Receptor Gb3, 1998, V37, P1777 HCAPLUS
- (62) Lingwood; J Biol Chem 1987, V262, P8834 HCAPLUS
- (63) Margerum; US 5834020 1998 HCAPLUS
- (64) Merritt, E; Current Opinions in Structural Biology LTD 1995, V5(2), P165 HCAPLUS
- (65) Merritt, E; Molecular Microbiology 1994, V13(4), P745 HCAPLUS
- (66) Merritt, E; Protein Science 1994, V3, P166 HCAPLUS
- (67) Merritt, E; Protein Science 1997, V6, P1516 HCAPLUS
- (68) Nilsson; Bioconj Chem 1997, V8(4), P466 HCAPLUS
- (69) Nyholm; Chem and Biol 1996, V3, P263 HCAPLUS
- (70) Okamoto; Tetrahedron 1990, V47, P5835
- (71) Oku; Microb Pathog 1989, V6, P113 HCAPLUS
- (72) Paulsen, H; Angew Chem Int Ed Eng 1982, V21, P155
- (73) Paulsen, H; Carbohydr Res 1982, V104, P195 HCAPLUS
- (74) Pickett, C; J Bacteriol 1987, V169(11), P5180 HCAPLUS
- (75) Pickett, C; J Bacteriol 1989, V171(9), P4945 HCAPLUS
- (76) Rana, S; Carboh Res 1981, V91, P149 HCAPLUS
- (77) Ratcliffe; US 5079353 1992 HCAPLUS
- (78) Roboson; J Petitur 1990, V117, P675
- (79) Roy, R; Polymer News 1996, V21(7), P226 HCAPLUS
- (80) Samuel; Infect Immunol 1990, V58, P611 HCAPLUS
- (81) Schaubach, R; Lievigs Am Chem 1991, P607 HCAPLUS
- (82) Schmidt, R; Angew Chem Int Ed Eng 1986, V25, P212
- (83) Schmitt, C; Infect Immun 1991, V59, P1065 HCAPLUS (84) Schriemer, D; Angew Chem Int Ed 1998, V37(24), P3383 HCAPLUS
- (85) Scotland, S; Lancet 1991, Vii, P885
- (86) Shakhnovich; US 5854992 1998
- (87) Simanek, E; Chem Rev 1998, V93, P833
- (88) Sixma, T; J Mol Biol 1993, V230, P890 HCAPLUS
- (89) Sixma, T; Nature 1991, V351, P371 HCAPLUS
- (90) Sixma, T; Nature 1992, V355, P561 HCAPLUS
- (91) Stehle, T; Naturel 1994, V369, P160 HCAPLUS
- (92) Stehle, T; Structure 1996, V4(2), P165 HCAPLUS
- (93) Stehle, T; Structure 1996, V4(2), P183 HCAPLUS
- (94) Stein, P; Nature 1992, V335, P748
- (95) Strockbine, N; J Bacterial 1988, V170, P1116 HCAPLUS
- (96) Tomalia; US 5527524 1996 HCAPLUS
- (97) Tomalia; US 5714166 1998 HCAPLUS

- (98) Von Itzstein, M; Nature 1993, V363, P418 HCAPLUS
- (99) Waddell, T; Biochem Biophys Res Comm 1988, V152, P674 HCAPLUS
- (100) Waddell, T; Proc Natl Acad Sci (USA) 1990, V87, P7898 HCAPLUS
- (101) Watson, K; Biochemistry 1994, V33, P5745 HCAPLUS
- (102) Weinstein, D; Cloning and Sequencing of a Shiga-Like Toxin Type II Variant from an Escherichia coli Strain Responsible for Edema Disease of Swine, 1988, V170, P4223 HCAPLUS
- (103) Wong, C; J Am Chem Soc 1997, V119, P8152 HCAPLUS
- (104) Zanini, D; J Am Chem Soc 1997, V119(9), P2088 HCAPLUS
- IT 258873-66-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BFOL (Biological study); PREP (Preparation); USES (Uses)

(compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

RN 258873-66-4 HCAPLUS

CN Carbamic acid, [.beta.-D-glucopyranose-1,2,3,4,6-penta-O-ylpentakis[3,1-propanediylthio(1-oxo-2,1-ethanediyl)imino-2,1-ethanediylimino(3,4-dioxo-1-cyclobutene-2,1-diyl)imino-8,1-octanediyliminocarbonyloxy-3,1,2-propanetriyl]]decakis-, decaester with methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-(2-hydroxyethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranoside (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

TT 79-06-1D, Acrylamide, derivs. 574-93-6D, Phthalocyanine,
 derivs. 12619-70-4D, Cyclodextrin, derivs. 13117-26-5D
 , derivs. 54832-51-8D, derivs. 66580-68-5D, derivs.
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological activity); MSTS

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

RN 79-06-1 HCAPLUS

CN 2-Propenamide (9CI) (CA INDEX NAME)

RN 574-93-6 HCAPLUS

CN 29H, 31H-Phthalocyanine (9CI) (CA INDEX NAME)

RN 12619-70-4 HCAPLUS

CN Cyclodextrin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 13117-26-5 HCAPLUS

CN D-Galactose, 4-O-.alpha.-D-galactopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 54832-51-8 HCAPLUS

CN D-Glucose, O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 66580-68-5 HCAPLUS

CN D-Glucose, O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 58-85-5 9013-20-1, Streptavidin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

RN 58-85-5 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Rotation (+). Absolute stereochemistry.

RN 9013-20-1 HCAPLUS

Ť

(CA INDEX NAME) CN Streptavidin (8CI, 9CI)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

244076-91-3P 244076-92-4P 244076-93-5P 244076-96-8P 244076-97-9P 244076-98-0P 244076-99-1P 244077-00-7P 244077-01-8P 244077-02-9P 244077-03-0P 244077-04-1P 244077-05-2P 244077-06-3P 244077-07-4P 244077-08-5P 244077-09-6P 258857-10-2P 258857-11-3P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

RN244076-91-3 HCAPLUS

CN D-Glucopyranose, 4-O-(3,4,6-tri-O-acetyl-2-O-2-propenyl-.beta.-Dgalactopyranosyl)-, tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

244076-92-4 HCAPLUS RN

.alpha.-D-Glucopyranosyl chloride, 4-O-(3,4,6-tri-O-acetyl-2-O-2-propenyl-CN

.beta.-D-galactopyranosyl)-, triacetate (9CI) (CA INDEX NAME)

RN 244076-93-5 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-(2-O-2-propenyl-.beta.-Dgalactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 244076-96-8 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 2,3,6-tris-O-(phenylmethyl)-4-O-[3-O-(phenylmethyl)-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-97-9 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-[6-O-benzoyl-3-O-(phenylmethyl)-2-O-2-propenyl-.beta.-D-galactopyranosyl]-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 244076-98-0 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-6-O-benzoyl-3-O-(phenylmethyl)-2O-2-propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244076-99-1 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-(phenylmethyl)-2-O-2propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-00-7 HCAPLUS

r

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-2-O-2propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 244077-01-8 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-(2-hydroxyethyl)-3,6-bis-O(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-02-9 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-[2-[[(4-nitrophenoxy)carbonyl]oxy]ethyl]-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 244077-03-0 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[(2-hydroxy-1,3-propanediyl)bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-B

RN 244077-04-1 HCAPLUS

.beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[(4-nitrophenoxy)carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-A

O Ph

PAGE 2-B

Ph_O

RN 244077-05-2 HCAPLUS

CN

.beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[(8-aminooctyl)amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

PAGE 2-B

...OMe

Ph

PAGE 3-B

Ph

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[(8-aminooctyl)amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

شة

PAGE 1-A

PAGE 1-B

ОН

PAGE 2-A

PAGE 2-B

но

<u>ٿ</u>.

RN 244077-07-4 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[[8-[(2-ethoxy-3,4-dioxo-1-cyclobuten-1-yl)amino]octyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

OH

HO

PAGE 2-B

RN 244077-08-5 HCAPLUS

CN Acetic acid, [[3-[[2,3,4,6-tetrakis-O-[3-[(2-methoxy-2-oxoethyl)thio]propyl]-.beta.-D-glucopyranosyl]oxy]propyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244077-09-6 HCAPLUS

Ľ

CN Acetamide, N-(2-aminoethyl)-2-[[3-[[2,3,4,6-tetrakis-O-[3-[[2-[(2-aminoethyl)amino]-2-oxoethyl]thio]propyl]-.beta.-D-

glucopyranosyl]oxy]propyl]thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

...

Œ.

PAGE 1-B

RN 258857-10-2 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-[4,6-O-(phenylmethylene)-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 258857-11-3 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 2,3,6-tris-O-(phenylmethyl)-4-O-[3-O-(phenylmethyl)-4,6-O-(phenylmethylene)-2-O-2-propenyl-.beta.-D-

galactopyranosyl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 98-88-4, Benzoyl chloride 100-39-0 106-95-6,
 Allyl bromide, reactions 107-15-3, 1,2-Ethanediamine, reactions
373-44-4, 1,8-Octanediamine 616-29-5,
 1,3-Diamino-2-hydroxypropane 1125-88-8 2365-48-2,
 Methyl thioglycolate 5231-87-8 7693-46-1,
 4-Nitrophenyl chloroformate 41110-63-8 63976-06-7
 102674-58-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)
RN 98-88-4 HCAPLUS
CN Benzoyl chloride (8CI, 9CI) (CA INDEX NAME)

RN 100-39-0 HCAPLUS CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)

Ph-CH2-Br

RN 106-95-6 HCAPLUS CN 1-Propene, 3-bromo- (9CI) (CA INDEX NAME)

Br-CH2-CH=CH2

RN 107-15-3 HCAPLUS CN 1,2-Ethanediamine (9CI) (CA INDEX NAME)

H2N-CH2-CH2-NH2

RN 373-44-4 HCAPLUS

CN 1,8-Octanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)

 ${\rm H_2N^-}$ (CH₂)₈-NH₂

÷

RN 616-29-5 HCAPLUS

CN 2-Propanol, 1,3-diamino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 1125-88-8 HCAPLUS

CN Benzene, (dimethoxymethyl) - (9CI) (CA INDEX NAME)

RN 2365-48-2 HCAPLUS

CN Acetic acid, mercapto-, methyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 5231-87-8 HCAPLUS

CN 3-Cyclobutene-1,2-dione, 3,4-diethoxy- (9CI) (CA INDEX NAME)

RN 7693-46-1 HCAPLUS

CN Carbonochloridic acid, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

RN 41110-63-8 HCAPLUS

CN .alpha.-D-Galactopyranosyl chloride, 2,3,4,6-tetrakis-O-(phenylmethyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 63976-06-7 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-propenyl 2,3,4,6-tetra-O-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102674-58-8 HCAPLUS

CN D-Glucose, 4-O-[6-O-(1-methoxy-1-methylethyl)-3,4-O-(1-methylethylidene)-.beta.-D-galactopyranosyl]-2,3:5,6-bis-O-(1-methylethylidene)-, dimethyl acetal (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L41 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:31361 HCAPLUS

DN 134:101139

TI Preparation of self-associating compounds and their aggregate bodies for use as medicaments

IN Bovin, Nikolai Vladimirovich; Tusikov, Alexandr Borisovich; Chinarev, Alexandr Alexandrovich; Dicusar, Mariya Alexandrovna; Gambariyan, Alexandra Sergeevna;

```
Marinina, Valentina Petrovna
PΑ
     Syntesome Gesellschaft fur Medizinische Biochemie m.b.H., Germany
SO
     PCT Int. Appl., 60 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     German
IC
     ICM A61K047-48
CC
     33-4 (Carbohydrates)
     Section cross-reference(s): 34, 63
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
     ______
                      ____
                           _____
                                           -----
                                                            _____
                                           WO 2000-EP6139
                                                            20000630 <--
PΙ
     WO 2001002018
                      Α2
                            20010111
     WO 2001002018
                      А3
                            20020314
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
             IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     DE 19930177
                            20010111
                                           DE 1999-19930177 19990630 <--
                       Α1
                            20020724
                                           EP 2000-949235
                                                           20000630 <--
     EP 1223984
                       A2
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2003503465
                      Т2
                            20030128
                                           JP 2001-507508
                                                            20000630 <--
PRAI DE 1999-19930177
                      Α
                            19990630
                                      <--
     WO 2000-EP6139
                       W
                            20000630
                                     <--
     Title compds., [e.g., {.alpha.-Neu5Ac-OCH2-4-C6H4-
AΒ
     NHC(0)CH2NHC(0)(CH2)4C(0)(NHCH2C(0))0-7NHCH2\}4C, in which the terminal
     portion of each arm may contain fragments capable of cellular receptor
     blocking, antibiotic, or therapeutic action, capable of forming
     self-aggregates, were prepd. for use as drug-delivery or diagnostic
     agents. The tetrahedral core was synthesized from {H2NCH2}4C using
     BOC-peptide coupling chem. The terminal units were prepd. from
     tetra-O-acetyl-5-acetylneuraminic acid Me ester derivs.,
     5-acetylneuraminic acid .alpha.-2.fwdarw.3-B-D-GalP-(1.fwdarw.4)-.beta.-D-
     GluP-NHC(O)CH2NH2, or .alpha.-D-GalP-(1.fwdarw.3)-.beta.-D-GalP-O-
     (CH2)3NH2 derivs. In a test of inhibition of viral cell adhesion, using
     influenza virus, {.alpha.-Neu5Ac-OCH2-4-C6H4-NHC(O)CH2NHC(O)(CH2)4C(O)(NH(
     CH2)5C(O))3(NHCH2C(O))5NHCH2}4C had relative activity (to
     Neu5Ac-.alpha.-CH2Ph) of 2500:1.
ST
     oligosaccharide peptide conjugate prepn aggregating drug delivery
IT
     Neoplasm.
        (metastasis; prepn. of self-assocg. compds. and their aggregate bodies
        for use as medicaments)
ΙT
     Autoimmune disease
     Coupling reaction
     Drug delivery systems
     Infection
     Inflammation
     Influenza virus
     Self-association
        (prepn. of self-assocq. compds. and their aggregate bodies for use as
        medicaments)
ΙT
     Transplant and Transplantation
        (rejection; prepn. of self-assocg. compds. and their aggregate bodies
        for use as medicaments)
ΙT
     Wound healing
        (selectin-facilitated; prepn. of self-assocg. compds. and their
        aggregate bodies for use as medicaments)
```

ž.

```
318286-47-4P 318286-49-6P 318286-51-0P
TΤ
    318286-53-2P 318286-55-4P 318286-65-6DP,
    self-aggregates 318507-77-6P 318508-09-7P
    318508-48-4P 318508-50-8P 318508-52-0P
    318508-53-1DP, self-aggregates 318508-54-2DP,
    self-aggregates 318508-57-5DP, self-aggregates
    318508-58-6DP, self-aggregates 318509-04-5P
    318509-46-5P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of self-assocg. compds. and their aggregate bodies for use as
        medicaments)
ΙT
    3392-07-2 29248-48-4 51513-80-5
    53546-95-5 137125-82-7 201667-63-2
    205753-10-2 318286-06-5 318286-10-1
    318286-61-2 318286-67-8
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of self-assocg. compds. and their aggregate bodies for use as
        medicaments)
    14302-75-1P 32564-25-3P 205753-09-9P
    226408-84-0P 318285-90-4P 318285-93-7P
    318285-95-9P 318286-08-7P 318286-16-7P
    318286-19-0P 318286-21-4P 318286-23-6P
    318286-25-8P 318286-27-0P 318286-29-2P
    318286-31-6P 318286-33-8P 318286-35-0P
    318286-37-2P 318286-41-8P 318286-43-0P
    318286-57-6P 318286-59-8P 318286-69-0P
    318510-95-1P 318511-00-1P 318511-08-9P
    318511-10-3P 318511-11-4P 318511-17-0P
    318511-35-2P 318511-41-0P 318511-44-3P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of self-assocg. compds. and their aggregate bodies for use as
        medicaments)
    318285-97-1P 318285-99-3P 318286-01-0P
IT
    318286-03-2P 318286-45-2P 318286-63-4P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of self-assocq. compds. and their aggregate bodies for use as
        medicaments)
ΙT
    318286-47-4P 318286-49-6P 318286-51-0P
    318286-53-2P 318286-55-4P 318286-65-6DP,
    self-aggregates 318507-77-6P 318508-09-7P
    318508-48-4P 318508-50-8P 318508-52-0P
    318508-53-1DP, self-aggregates 318508-54-2DP,
    self-aggregates 318508-57-5DP, self-aggregates
    318508-58-6DP, self-aggregates 318509-04-5P
    318509-46-5P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of self-assocq. compds. and their aggregate bodies for use as
        medicaments)
RN
    318286-47-4 HCAPLUS
CN ·
    .alpha.-Neuraminic acid, 2,2'-O-[[15,15-bis[[[[6-[[2-[[4-[[(N-acetyl-
     .alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-
    dioxohexyl]amino]acetyl]amino]methyl]-1,4,9,12,18,21,16,29-octaoxo-
     3,10,13,17,20,27-hexaazanonacosane-1,29-diyl]bis(imino-4,1-
    phenylenemethylene)]bis[N-acetyl- (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c}
R \\
H \\
NH
\end{array}$$

$$\begin{array}{c|c}
H \\
NH
\end{array}$$

$$\begin{array}{c|c}
O \\
NH
\end{array}$$

$$\begin{array}{c|c}
O \\
H \\
HN
\end{array}$$

$$\begin{array}{c|c}
O \\
H \\
HN
\end{array}$$

PAGE 1-C

со₂н

PAGE 2-A

PAGE 2-C

PAGE 3-A

RN 318286-49-6 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]a mino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycyl-, 2,2',2'',2'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

PAGE 2-C

PAGE 3-A

PAGE 3-B

RN 318286-51-0 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]a mino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycyl-, 3,3',3'',3''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

PAGE 2-A

PAGE 2-C

PAGE 3-A

PAGE 3-B

RN 318286-53-2 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]a mino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycylglycyl-, 4,4',4'',4'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

PAGE 1-D

Ĩ-

"و د

Ľ

PAGE 3-B

RN 318286-55-4 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]a mino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycylglycylglycyl-, 5,5',5'',5'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

$$\begin{array}{c|c}
H \\
N \\
N \\
H
\end{array}$$

$$\begin{array}{c}
H \\
N \\
H
\end{array}$$

$$\begin{array}{c}
O \\
N \\
H
\end{array}$$

$$\begin{array}{c}
O \\
CH_2
\end{array}$$

$$\begin{array}{c}
A \\
H
\end{array}$$

$$\begin{array}{c}
O \\
H
\end{array}$$

$$\begin{array}{c}
O \\
H
\end{array}$$

PAGE 1-D

PAGE 2-A

PAGE 2-D

PAGE 3-B

RN 318286-65-6 HCAPLUS

CN Glycinamide, 6,6'-(1,4-butanediyl)bis[N-[6-[[2-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycy

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

PAGE 1-D

RN 318507-77-6 HCAPLUS

Glycine, N-[6-[[6-[[2-[[4-[[(N-acetyl-.alpha.neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6dioxohexyl]amino]-1-oxohexyl]amino]-1-oxohexyl]glycylglycylglycylglycyl-,
5,5',5'',5'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine
(9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318508-09-7 HCAPLUS

CN Glycine, N-[30-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amin o]-1,8,15,22,27,30-hexaoxo-7,14,21,28-tetraazatriacont-1-yl]glycylglycylglycylglycyl-, 5,5',5'',5'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318508-48-4 HCAPLUS

CN Glycine, N-[6-[[6-[[2-[[4-[[(N-acetyl-.alpha.neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-6-oxohexyl]amino]1,6-dioxohexyl]glycylglycylglycylglycyl-, 5,5',5'',5'''-tetraamide with
2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318508-50-8 HCAPLUS

```
CN
        Glycine, N-[6-[[6-[[6-[[4-[[4-[[(N-acetyl-.alpha.-
        neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-6-oxohexyl]amino]-
        6-oxohexyl]amino]-1,6-dioxohexyl]glycylglycylglycylglycyl-,
        5,5',5'',5'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine
         (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
        318508-52-0 HCAPLUS
RN
CN
        Glycine, N-[30-[[4-[[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amin
        o]-1,6,13,20,27,30-hexaoxo-7,14,21,28-tetraazatriacont-1-
        yl]glycylglycylglycylglycyl-, 5,5',5'',5'''-tetraamide with
        2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
        318508-53-1 HCAPLUS
CN
        Glycine, N-[6-[2-[4-[(N-acetyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]a
        mino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycylglycylglycylglycy
        1-, 7,7',7'',7'''-tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine
        (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
        318508-54-2 HCAPLUS
RN
        Glycine, N-[31-[(3-O-.alpha.-D-galactopyranosyl-.beta.-D-
CN
        galactopyranosyl)oxy]-1,8,15,22,27-pentaoxo-7,14,21,28-tetraazahentriacont-
        1-yl] \\ glycylglycylglycylglycyl-, \\ tetraamide \\ with \\ 2, \\ 2-bis(aminomethyl)-1, \\ 3-bis(aminomethyl)-1, \\ 3-bis(aminomet
        propanediamine (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
        318508-57-5 HCAPLUS
RN
        Glycine, N-[6-[[2-[[0-(N-acetyl-4,7,8,9-tetra-0-acetyl-.alpha.-
CN
        neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-
        D-glucopyranosyl]amino]-2-oxoethyl]amino]-1,6-
        dioxohexyl]glycylglycylglycylglycyl-, 5,5',5'',5'''-tetraamide with
        2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
        318508-58-6 HCAPLUS
        Glycine, N-[6-[[2-[[0-(N-acetyl-4,7,8,9-tetra-0-acetyl-.alpha.-
CN
        neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-
        D-glucopyranosyl]amino]-2-oxoethyl]amino]-1,6-
        dioxohexyl]glycylglycylglycylglycylglycylglycyl-, 7,7',7''-tetraamide
        with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
        318509-04-5 HCAPLUS
RN
CN
        Glycine, N-[6-[[3-[[0-(N-acetyl-4,7,8,9-tetra-0-acetyl-.alpha.-
        neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-
         (acetylamino) -2-deoxy-.beta.-D-glucopyranosyl]oxy]propyl]amino]-1,6-
        \verb|dioxohexyl|| \verb|glycylglycylglycylglycylglycylglycyl-|, 7,7',7'',7'''-tetraamide|
        with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN
        318509-46-5 HCAPLUS
CN
        Glycine, N-[6-[6-[6-[3-[0-(N-acetyl-4,7,8,9-tetra-0-acetyl-.alpha.-
        neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-
         (acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]propyl]amino]-1,6-
        dioxohexyl]amino]-1-oxohexyl]amino]-1-oxohexyl]glycylglycylglycylgly
        cylglycyl-, 7,7',7'',7'''-tetraamide with 2,2-bis(aminomethyl)-1,3-
        propanediamine (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
```

ፐጥ

3392-07-2 29248-48-4 51513-80-5 53546-95-5 137125-82-7 201667-63-2

205753-10-2 318286-06-5 318286-10-1

318286-61-2 318286-67-8

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of self-assocg. compds. and their aggregate bodies for use as
 medicaments)

RN 3392-07-2 HCAPLUS

CN Carbamic acid, [2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 29248-48-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-[[N-[(1,1-dimethylethoxy)carbonyl]glycylglycyl]oxy]- (9CI) (CA INDEX NAME)

RN 51513-80-5 HCAPLUS

CN Carbamic acid, [6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 53546-95-5 HCAPLUS

CN Hexanoic acid, 6-[[(1,1-dimethylethoxy)carbonyl]amino]-, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

RN 137125-82-7 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-0-[[4-[[[(1,1-

dimethylethoxy)carbonyl]amino]acetyl]amino]phenyl]methyl]-, methyl ester,
4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201667-63-2 HCAPLUS

CN .beta.-D-Galactopyranoside, 3-aminopropyl 3-O-.alpha.-D-galactopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 205753-10-2 HCAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

PAGE 1-B

RN 318286-06-5 HCAPLUS

CN Acetamide, N-[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]-2-amino-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 318286-10-1 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[(aminoacetyl)amino]phenyl]methy l]-, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 318286-61-2 HCAPLUS

CN Glycinamide, 4,4'-(1,4-butanediyl)bis[glycylglycylglycyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

PAGE 1-B

RN 318286-67-8 HCAPLUS

CN .beta.-D-Glucopyranoside, 3-aminopropyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 14302-75-1P 32564-25-3P 205753-09-9P 226408-84-0P 318285-90-4P 318285-93-7P 318285-95-9P 318286-08-7P 318286-16-7P 318286-19-0P 318286-21-4P 318286-23-6P 318286-25-8P 318286-27-0P 318286-29-2P 318286-31-6P 318286-33-8P 318286-35-0P 318286-37-2P 318286-41-8P 318286-43-0P 318286-57-6P 318286-59-8P 318286-69-0P 318510-95-1P 318511-00-1P 318511-08-9P 318511-10-3P 318511-11-4P 318511-17-0P 318511-35-2P 318511-41-0P 318511-44-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of self-assocg. compds. and their aggregate bodies for use as medicaments)

RN 14302-75-1 HCAPLUS

CN 1,3-Propanediamine, 2,2-bis(aminomethyl)-, tetrahydrochloride (8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2-\text{NH}_2 \\ | \\ \text{H}_2\text{N}-\text{CH}_2-\text{C}-\text{CH}_2-\text{NH}_2 \\ | \\ \text{CH}_2-\text{NH}_2 \end{array}$$

•4 HCl

RN 32564-25-3 HCAPLUS

CN Hexanedioic acid, bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

RN 205753-09-9 HCAPLUS

CN 2,5,9,12-Tetraazatridecanedioic acid, 7,7-bis[[[[[(1,1-dimethylethoxy)carbonyl]amino]acetyl]amino]methyl]-4,10-dioxo-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

RN 226408-84-0 HCAPLUS

CN Hexanoic acid, 6-[[3-[(3-O-.alpha.-D-galactopyranosyl-.beta.-D-galactopyranosyl)oxy]propyl]amino]-6-oxo-, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 318285-90-4 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[[[[6-[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxohexyl]amino]acetyl]amino]phenyl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

─OBu-t

RN 318285-93-7 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[(20,20-dimethyl-1,4,11,18-tetraoxo-19-oxa-3,10,17-triazaheneicos-1-yl)amino]phenyl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Ľ

PAGE 1-B

CN

RN 318285-95-9 HCAPLUS

.alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[(27,27-dimethyl-1,4,11,18,25-pentaoxo-26-oxa-3,10,17,24-tetraazaoctacos-1-yl)amino]phenyl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

$$(CH_2)$$
 5 (CH_2) 5 N OBu-t

RN 318286-08-7 HCAPLUS

CN Hexanoic acid, 6-[[2-[[0-(N-acetyl-4,7,8,9-tetra-O-acetyl-.alpha.-neuraminosyl)-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]amino]-2-oxoethyl]amino]-6-oxo-, 1-(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 318286-16-7 HCAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycylglycylglycylglycylglycylglycylglycylglycylglycylglycyllor, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 1-C

$$\begin{array}{c|c} \text{O} & \text{O} \\ \parallel & \parallel \\ -\text{NH-C-CH}_2-\text{NH-C-OBu-t} \end{array}$$

RN 318286-19-0 HCAPLUS

CN Glycine, glycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine, tetrahydrochloride (9CI) (CA INDEX NAME)

•4 HCl

RN 318286-21-4 HCAPLUS

CN Glycine, glycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

RN 318286-23-6 HCAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

PAGE 1-B

RN 318286-25-8 HCAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]glycylglyc

PAGE 1-A

PAGE 1-B

PAGE 1-C

PAGE 1-D

— OBu-t

RN 318286-27-0 HCAPLUS

CN Glycine, N-(6-amino-1-oxohexyl)glycylglycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine, tetrahydrochloride (9CI) (CA INDEX NAME)

•4 HCl

$$- \operatorname{CH}_2 - \operatorname{C-} \operatorname{NH-} \operatorname{CH}_2$$

PAGE 1-C

RN 318286-29-2 HCAPLUS

CN Glycine, N-(6-amino-1-oxohexyl)glycylglycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

RN 318286-31-6 HCAPLUS

CN Glycine, N-[6-[(6-amino-1-oxohexyl)amino]-1-oxohexyl]glycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine, tetrahydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

•4 HCl

PAGE 1-B

PAGE 1-C

RN 318286-33-8 HCAPLUS

CN Glycine, N-[6-[(6-amino-1-oxohexyl)amino]-1-oxohexyl]glycylglycylglycylglycylglycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA

INDEX NAME)

PAGE 1-C

RN 318286-35-0 HCAPLUS

CN Glycine, N-[6-[[6-[(6-amino-1-oxohexyl)amino]-1-oxohexyl]amino]-1-oxohexyl]glycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine, tetrahydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

● 4 HC1

PAGE 1-B

$$\begin{array}{c|c} O & R \\ || \\ -- NH - CH_2 - C - NH - CH_2 - C - NH - CH_2 - C - NH - CH_2 \\ || & || \\ O & O \end{array}$$

PAGE 1-C

PAGE 1-D

RN 318286-37-2 HCAPLUS

CN Glycine, N-[6-[[6-[(6-amino-1-oxohexyl)amino]-1-oxohexyl]amino]-1-oxohexyl]glycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & R \\ & || & & & \\ - & \text{NH-CH}_2-\text{C-NH-CH}_2-\text{C-NH-CH}_2 \\ & & || & & || \\ & & & \text{O} \end{array}$$

PAGE 1-C

PAGE 1-D

RN 318286-41-8 HCAPLUS

CN .alpha.-Neuraminic acid, 2,2'-O-[[12,12-bis[[[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]ami no]-2-oxoethyl]amino]-1,6-dioxohexyl]amino]methyl]-1,4,9,15,20,23-hexaoxo-3,10,14,21-tetraazatricosane-1,23-diyl]bis(imino-4,1-phenylenemethylene)]bis[N-acetyl-, dimethyl ester, 4,4',7,7',8,8',9,9'-octaacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

RN 318286-43-0 HCAPLUS

.alpha.-Neuraminic acid, 2,2'-O-[[15,15-bis[[[[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]amino]acetyl]amino]methyl]
1,4,9,12,18,21,16,29-octaoxo-3,10,13,17,20,27-hexaazanonacosane-1,29-diyl]bis(imino-4,1-phenylenemethylene)]bis[N-acetyl-, dimethyl ester,4,4',7,7',8,8',9,9'-octaacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

PAGE 1-C

<u>ٿ</u>

PAGE 2-A

PAGE 2-B

PAGE 2-C

RN 318286-57-6 HCAPLUS

CN Glycine, glycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine, tetrahydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

● 4 HCl

PAGE 1-B

PAGE 1-C

— NH₂

RN 318286-59-8 HCAPLUS
CN Glycine, glycylglycylglycylglycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine, tetrahydrochloride (9CI) (CIINDEX NAME)

PAGE 1-A

● 4 HCl

PAGE 1-B

PAGE 1-C

RN 318286-69-0 HCAPLUS

CN Hexanoic acid, 6-[[3-[[0-(N-acetyl-4,7,8,9-tetra-0-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-0-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]oxy]propyl]amino]-6-oxo-, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

۳.

RN 318510-95-1 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318511-00-1 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318511-08-9 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318511-10-3 HCAPLUS

CN Glycine, N-[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]glycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318511-11-4 HCAPLUS

CN Glycine, N-[6-[[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]amino]-1-oxohexyl]amino]-1-oxohexyl]glycylglycylglycylglycyl-,tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 318511-17-0 HCAPLUS

CN Glycine, N-[30-[[4-[[(N-acetyl-4,7,8,9-tetra-0-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-1,8,15,22,27,30-hexaoxo-7,14,21,28-

tetraazatriacont-1-yl]glycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- RN 318511-35-2 HCAPLUS
- CN Glycine, N-[6-[[6-[[2-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-6-oxohexyl]amino]-1,6-dioxohexyl]glycylglycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)
- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- RN 318511-41-0 HCAPLUS
- CN Glycine, N-[6-[[6-[[6-[[4-[[(N-acetyl-4,7,8,9-tetra-0-acetyl-1-methyl-alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-6-oxohexyl]amino]-6-oxohexyl]amino]-1,6-dioxohexyl]glycylglycy
- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- RN 318511-44-3 HCAPLUS
- CN Glycine, N-[30-[[4-[[(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-1,6,13,20,27,30-hexaoxo-7,14,21,28-tetraazatriacont-1-yl]glycylglycylglycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)
- *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
- IT 318285-97-1P 318285-99-3P 318286-01-0P 318286-03-2P 318286-45-2P 318286-63-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of self-assocg. compds. and their aggregate bodies for use as
 medicaments)

RN 318285-97-1 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[[[[6-(4-nitrophenoxy)-1,6-dioxohexyl]amino]acetyl]amino]phenyl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[[[6-[[6-(4-nitrophenoxy)-1,6-dioxohexyl]amino]-1-oxohexyl]amino]acetyl]amino]phenyl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<u>سکت</u> ۷

PAGE 1-B

RN 318286-01-0 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[[[[6-[[6-[[6-(4-nitrophenoxy)-1,6-dioxohexyl]amino]-1-oxohexyl]amino]-1-oxohexyl]amino]acetyl]amino]phen yl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CA INDEX NAME)

PAGE 1-B

RN 318286-03-2 HCAPLUS

CN .alpha.-Neuraminic acid, N-acetyl-2-O-[[4-[[30-(4-nitrophenoxy)-1,4,11,18,25,30-hexaoxo-3,10,17,24-tetraazatriacont-1-yl]amino]phenyl]methyl]-, methyl ester, 4,7,8,9-tetraacetate (9CI) (CAINDEX NAME)

PAGE 1-B

$$\begin{array}{c|c}
 & O \\
 & N \\
 & N \\
 & O
\end{array}$$

$$\begin{array}{c}
 & H \\
 & N \\
 & O
\end{array}$$

$$\begin{array}{c}
 & CH_2)_4 \\
 & O
\end{array}$$

$$\begin{array}{c}
 & O \\
 & NO_2
\end{array}$$

RN 318286-45-2 HCAPLUS

ت:

r

CN .alpha.-Neuraminic acid, 2,2'-O-[[12,12-bis[[[6-[[2-[[4-[[(N-acetyl-alpha.-neuraminosyl)oxy]methyl]phenyl]amino]-2-oxoethyl]amino]-1,6-dioxohexyl]amino]methyl]-1,4,9,15,20,23-hexaoxo-3,10,14,21-tetraazatricosane-1,23-diyl]bis(imino-4,1-phenylenemethylene)]bis[N-acetyl-(9CI) (CA INDEX NAME)

PAGE 2-B

$$\begin{array}{c|c} & & & & \\ & & & \\ & &$$

RN

318286-63-4 HCAPLUS Glycinamide, 6,6'-(1,4-butanediyl)bis[glycylgl CN dihydrochloride (9CI) (CA INDEX NAME)

●2 HC1

PAGE 1-C

```
L41 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ΑN
    2000:117249 HCAPLUS
DN
    132:161232
    Compounds, including saccharide compounds, for treatment of bacterial
ΤI
    infections, and preparation thereof
    Bundle, David R.; Kitov, Pavel; Read, Randy J.; Ling, Hong; Armstrong,
IN
PA
    The Governors of the University of Alberta, Can.
    PCT Int. Appl., 96 pp.
SO
    CODEN: PIXXD2
DT
    Patent
    English
LA
IC
    ICM G01N033-53
CC
    1-5 (Pharmacology)
    Section cross-reference(s): 33, 63
FAN.CNT 3
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                                          _____
                           _____
                                                          _____
PΙ
    WO 2000008467
                     A2
                           20000217
                                          WO 1999-CA725
                                                           19990806
                           20000706
    WO 2000008467
                     А3
        W: AU, CA, JP
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
    US 5962423
                      Α
                           19991005
                                          US 1998-130495
                                                           19980807
    US 6310043
                           20011030
                                          US 1999-317290
                                                           19990524 <--
                     В1
    CA 2339198
                           20000217
                                          CA 1999-2339198 19990806
                      AA
                           20000228
                                          AU 1999-51450
                                                           19990806
    AU 9951450
                      Α1
    AU 754331
                           20021114
                     В2
```

IE, FI
PRAI US 1998-130495 A 19980807
US 1999-317290 A 19990524
WO 1999-CA725 W 19990806

A2

20010530

EP 1102779

AΒ Compds. which bind to toxins assocd. with enteric bacterial infection; compns. including the compds., methods for the neutralization of toxins in a patient, and methods for the diagnosis of bacterial and viral infections are disclosed. Toxins which can be bound by the compds. include pentameric toxins, for example SLTs (shiga-like toxins), such as those from Salmonella, Campylobacter and other bacteria, verotoxins from E. coli, cholera toxin, Clostridium difficile toxins A and B, bacterial pili from enteropathogenic E. coli and enterotoxigenic E. coli and viral lectins, such as viral hemagglutinins. The compds. include a core mol. bound to a plurality of linker arms, which in turn are bound to a plurality of bridging moieties, which in turn are bound to at least one, and preferably, two or more ligands which bind to the toxin. Examples of suitable ligands include di- and for trisaccharide moieties. The di- or tri-saccharide moieties themselves are active in binding to the SLTs. presence of a plurality of bridged dimers of the ligands is responsible for the increased binding affinity of the compds. relative to the ligands themselves. In one embodiment, the compds., when administered in a timely fashion to a patient suffering from enteric E. coli infection, inhibit progression of this infection into hemolytic uremic syndrome (HUS).

EP 1999-936219

AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

19990806

ST antibacterial bacterial toxin saccharide deriv prepn; bacteria virus infection diagnosis; Escherichia hemolytic uremic syndrome saccharide deriv

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(B, Clostridium difficile; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(Shiga-like toxin I; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(Shiga-like toxin II; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(Shiga-like toxin; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Carbohydrates, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (aldaric acids; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Peptides, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (amino acids; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Infection

(bacterial, diagnosis; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(cholera; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Antibacterial agents

Campylobacter

Drug delivery systems

Salmonella

(compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Toxins

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Agglutinins and Lectins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

IT Amino acids, biological studies
Disaccharides

ΙT

ΙT

ΙT

ΙT

ΙT

ΙT

TT

TT

ΙT

ΙT

IT

ΙT

IT

ΙT

Monosaccharides Oligosaccharides, biological studies Trisaccharides RL: BSU (Biological study, unclassified); BIOL (Biological study) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Escherichia coli (enterotoxigenic; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Pilus (from enteropathogenic E. coli; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Drug delivery systems (injections; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Fluorescent substances (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Enzymes, biological studies Radionuclides, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Drug delivery systems (oral; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Intestinal bacteria (pathogenic, pili from enteropathogenic E. coli; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Escherichia coli (pili from enteropathogenic E. coli; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Alcohols, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (polyhydric; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Albumins, biological studies RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (saccharide derivs.; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Toxins RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (toxin A, Clostridium difficile; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Clostridium difficile (toxins A and B; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) Virus (viral lectin; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 258873-66-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(compds., including saccharide compds., for treatment of bacterial

TΨ 79-06-1D, Acrylamide, derivs. 574-93-6D, Phthalocyanine, derivs. 12619-70-4D, Cyclodextrin, derivs. 13117-26-5D , derivs. **54832-51-8D**, derivs. **66580-68-5D**, derivs.

infections, and prepn. thereof)

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) **58-85-5 9013-20-1,** Streptavidin RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 244076-91-3P 244076-92-4P 244076-93-5P 244076-96-8P 244076-97-9P 244076-98-0P .244076-99-1P 244077-00-7P 244077-01-8P 244077-02-9P 244077-03-0P 244077-04-1P 244077-05-2P 244077-06-3P 244077-07-4P 244077-08-5P 244077-09-6P 258857-10-2P 258857-11-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 98-88-4, Benzoyl chloride 100-39-0 106-95-6, Allyl bromide, reactions 107-15-3, 1,2-Ethanediamine, reactions 373-44-4, 1,8-Diaminooctane 616-29-5, 1,3-Diamino-2-hydroxypropane 1125-88-8, .alpha.,.alpha.-Dimethoxytoluene 2365-48-2, Methyl thioglycolate **5231-87-8 7693-46-1**, 4-Nitrophenyl chloroformate 41110-63-8 63976-06-7 102674-58-8 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 258873-66-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 258873-66-4 HCAPLUS Carbamic acid, [.beta.-D-glucopyranose-1,2,3,4,6-penta-O-ylpentakis[3,1propanediylthio(1-oxo-2,1-ethanediyl)imino-2,1-ethanediylimino(3,4-dioxo-1cyclobutene-2,1-diyl)imino-8,1-octanediyliminocarbonyloxy-3,1,2propanetriyl]]decakis-, decaester with methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-0-2-0-(2-hydroxyethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranoside (9CI) (CA INDEX NAME) *** STRUCTURE DIAGRAM IS NOT AVAILABLE *** 79-06-1D, Acrylamide, derivs. 574-93-6D, Phthalocyanine, derivs. 12619-70-4D, Cyclodextrin, derivs. 13117-26-5D , derivs. **54832-51-8D**, derivs. **66580-68-5D**, derivs. RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof) 79-06-1 HCAPLUS 2-Propenamide (9CI) (CA INDEX NAME)

$$^{\circ}_{||}_{\text{H}_{2}\text{N}-\text{C}-\text{CH}}=\text{CH}_{2}$$

TΤ

ΤТ

IT

RN CN

RN

CN

i I'

RN 574-93-6 HCAPLUS CN 29H, 31H-Phthalocyanine (9CI) (CA INDEX NAME)

RN 12619-70-4 HCAPLUS

CN Cyclodextrin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 13117-26-5 HCAPLUS

CN D-Galactose, 4-O-.alpha.-D-galactopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 54832-51-8 HCAPLUS

CN D-Glucose, O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 66580-68-5 HCAPLUS

CN D-Glucose, O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

IT 58-85-5 9013-20-1, Streptavidin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (label; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

RN 58-85-5 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 9013-20-1 HCAPLUS

CN Streptavidin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 244076-91-3P 244076-92-4P 244076-93-5P

244076-96-8P 244076-97-9P 244076-98-0P

244076-99-1P 244077-00-7P 244077-01-8P

244077-02-9P 244077-03-0P 244077-04-1P

244077-05-2P 244077-06-3P 244077-07-4P

244077-08-5P 244077-09-6P 258857-10-2P

258857-11-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)

RN 244076-91-3 HCAPLUS

CN D-Glucopyranose, 4-O-(3,4,6-tri-O-acetyl-2-O-2-propenyl-.beta.-D-galactopyranosyl)-, tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

e T

RN 244076-92-4 HCAPLUS

CN .alpha.-D-Glucopyranosyl chloride, 4-O-(3,4,6-tri-O-acetyl-2-O-2-propenyl-beta.-D-galactopyranosyl)-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-93-5 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-(2-O-2-propenyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 244076-96-8 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 2,3,6-tris-O-(phenylmethyl)-4-O-[3-O-(phenylmethyl)-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-97-9 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-[6-O-benzoyl-3-O-(phenylmethyl)-2-O-2-propenyl-.beta.-D-galactopyranosyl]-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-98-0 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-6-O-benzoyl-3-O-(phenylmethyl)-2O-2-propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244076-99-1 HCAPLUS

ż

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-(phenylmethyl)-2-O-2propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-00-7 HCAPLUS

323

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-2-O-2propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-01-8 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-(2-hydroxyethyl)-3,6-bis-O(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-02-9 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-[2-[(4-nitrophenoxy)carbonyl]oxy]ethyl]-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A

PAGE 2-A

RN 244077-03-0 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[(2-hydroxy-1,3-propanediyl)bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A

PAGE 1-B

PAGE 2-A

PAGE 2-B

-

RN 244077-04-1 HCAPLUS

.beta.-D-Glucopyranoside, 2',2'''-O-[[2-[[(4-nitrophenoxy)carbonyl]oxy]1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl
O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-

(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-B

÷

PAGE 2-A

PAGE 2-B

RN 244077-05-2 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[(8-aminooctyl)amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A

PAGE 2-A

PAGE 2-B

.... OMe

Ph

PAGE 3-B

Ph

RN 244077-06-3 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[(8-aminooctyl)amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-B

Ľ

PAGE 2-B

НО

RN 244077-07-4 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[[8-[(2-ethoxy-3,4-dioxo-1-cyclobuten-1-yl)amino]octyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A

PAGE 2-B

RN 244077-08-5 HCAPLUS

CN Acetic acid, [[3-[[2,3,4,6-tetrakis-O-[3-[(2-methoxy-2-oxoethyl)thio]propyl]-.beta.-D-glucopyranosyl]oxy]propyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244077-09-6 HCAPLUS

CN Acetamide, N-(2-aminoethyl)-2-[[3-[[2,3,4,6-tetrakis-O-[3-[[2-[(2-aminoethyl)amino]-2-oxoethyl]thio]propyl]-.beta.-D-glucopyranosyl]oxy]propyl]thio]- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 258857-10-2 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-[4,6-O-(phenylmethylene)-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 258857-11-3 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 2,3,6-tris-O-(phenylmethyl)-4-O-[3-O-(phenylmethyl)-4,6-O-(phenylmethylene)-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

IT 98-88-4, Benzoyl chloride 100-39-0 106-95-6,
 Allyl bromide, reactions 107-15-3, 1,2-Ethanediamine, reactions
 373-44-4, 1,8-Diaminooctane 616-29-5,
 1,3-Diamino-2-hydroxypropane 1125-88-8, .alpha.,.alpha. Dimethoxytoluene 2365-48-2, Methyl thioglycolate
 5231-87-8 7693-46-1, 4-Nitrophenyl chloroformate
 4110-63-8 63976-06-7 102674-58-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction; compds., including saccharide compds., for treatment of bacterial infections, and prepn. thereof)
RN 98-88-4 HCAPLUS
CN Benzoyl chloride (8CI, 9CI) (CA INDEX NAME)

RN 100-39-0 HCAPLUS CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)

Ph-CH2-Br

RN 106-95-6 HCAPLUS CN 1-Propene, 3-bromo- (9CI) (CA INDEX NAME)

 $Br-CH_2-CH-CH_2$

RN 107-15-3 HCAPLUS CN 1,2-Ethanediamine (9CI) (CA INDEX NAME)

H2N-CH2-CH2-NH2

RN 373-44-4 HCAPLUS .
CN 1,8-Octanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_8-NH_2$

RN 616-29-5 HCAPLUS

CN 2-Propanol, 1,3-diamino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 1125-88-8 HCAPLUS

CN Benzene, (dimethoxymethyl) - (9CI) (CA INDEX NAME)

RN 2365-48-2 HCAPLUS

CN Acetic acid, mercapto-, methyl ester (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 5231-87-8 HCAPLUS

CN 3-Cyclobutene-1,2-dione, 3,4-diethoxy- (9CI) (CA INDEX NAME)

RN 7693-46-1 HCAPLUS

CN Carbonochloridic acid, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

RN 41110-63-8 HCAPLUS

CN .alpha.-D-Galactopyranosyl chloride, 2,3,4,6-tetrakis-O-(phenylmethyl)-(9CI) (CA INDEX NAME)

RN 63976-06-7 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-propenyl 2,3,4,6-tetra-O-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102674-58-8 HCAPLUS

CN D-Glucose, 4-O-[6-O-(1-methoxy-1-methylethyl)-3,4-O-(1-methylethylidene)-.beta.-D-galactopyranosyl]-2,3:5,6-bis-O-(1-methylethylidene)-, dimethyl acetal (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L41 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:635458 HCAPLUS

DN 131:228948

TI Preparation of dendrimer oligosaccharides for treatment of bacterial dysentery

IN Bundle, David R.; Kitov, Pavel; Read, Randy J.; Ling, Hong; Armstrong, Glen

```
PA
     The Governors of the University of Alberta, Can.
SO
     U.S., 27 pp.
     CODEN: USXXAM
DT
     Patent
LA
     English
     ICM A61K031-70
IC
     ICS A61K031-74; A61K031-745; A61K031-785
NCL
     514025000
     33-4 (Carbohydrates)
     Section cross-reference(s): 1, 10, 63
FAN.CNT 3
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                                           -----
                           -----
                            19991005
                                           US 1998-130495
                                                           19980807
PΙ
     US 5962423
                      Α
     US 6310043
                      В1
                            20011030
                                           US 1999-317290
                                                            19990524 <--
     CA 2339198
                            20000217
                                          CA 1999-2339198 19990806
                      AA
                                                           19990806
     WO 2000008467
                     A2
                            20000217
                                          WO 1999-CA725
     WO 2000008467
                     А3
                            20000706
         W: AU, CA, JP
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
     AU 9951450
                            20000228
                                          AU 1999-51450
                                                            19990806
                      Α1
     AU 754331
                            20021114
                      B2
     EP 1102779
                      A2
                            20010530
                                          EP 1999-936219
                                                            19990806
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         R:
             IE, FI
                            19980807
PRAI US 1998-130495
                      Α2
     US 1999-317290
                            19990524
                      Α
     WO 1999-CA725
                      W
                            19990806
AB
     Compds. which bind to shiga-like toxins (SLT) assocd. with enteric E. coli
     infection, compns. including the compds., methods for the neutralization
     of (SLT) in a patient, and methods for the diagnosis of enteric E. coli
     infection are disclosed. The compds. MFC-(LA)n-(BM)n were prepd. as
     shiga-like toxins wherein; MFC is a multifunctional core mol., LA is a
     linker arm, BM is a bridging mol. which includes two or more di- or
     trisaccharides, and which can optionally include large oligosaccharides, n
     is, independently, between 3 and 20, the di- or trisaccharide moiety are
     optionally linked to between one and eight addnl. saccharide moieties, and
     include an individual saccharide moiety selected from the group consisting
     of .alpha.Gal(1-4).beta.Gal, .alpha.Gal(1-4).beta.Gal(1-4).beta.GlcNAc,
     and .alpha.Gal(1-4).beta.Gal(1-4).beta.Glc, the bridging moieties are
     bound to at least one linker arm, the linker arms are, independently,
     C6-20 straight, branched or cyclic alkanes, in which one or more of the
     carbons may optionally be replaced with an O, S, or amine, and the linker
     arms can optionally be functionalized at one or more positions with a
     functional group selected from the group consisting of aryl, substituted
     aryl, heteroaryl, substituted heteroaryl, heterocyclic and substituted
     heterocyclic. The di- or tri-saccharide moieties themselves are active in
     binding to the SLTs. The presence of a plurality of bridged dimers of the
     di- and tri-saccharides is responsible for the increased binding affinity
     of the compds. relative to the di- and tri-saccharides themselves. The
     compds., when administered in a timely fashion to a patient suffering from
     enteric E. coli infection, inhibit progression of this infection into
     hemolytic uremic syndrome (HUS).
     hemolytic uremic syndrome inhibitor dendrimer oligosaccharide prepn; shiga
ST
     like toxin bactericide E coli oligosaccharide prepn; dendrimer
     oligosaccharide prepn cytotoxicity antibacterial
ΙT
     Toxins
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (Shiga-like toxin; prepn. of dendrimer oligosaccharides for treatment
```

of bacterial dysentery)

```
IT
     Kidney, disease
        (hemolytic-uremic syndrome; prepn. of dendrimer oligosaccharides for
        treatment of bacterial dysentery)
IT
     Antibacterial agents
     Cytotoxicity
     Dysentery
     Escherichia coli
        (prepn. of dendrimer oligosaccharides for treatment of bacterial
        dysentery)
ΙT
     Dendritic polymers
     Oligosaccharides, preparation
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of dendrimer oligosaccharides for treatment of bacterial
        dysentery)
     244077-03-0P 244077-07-4P 244094-61-9P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of dendrimer oligosaccharides for treatment of bacterial
        dysentery)
IT
     373-44-4, 1,8-Diaminooctane 492-61-5,
     .beta.-D-Glucopyranose 616-29-5, 1,3-Diamino-2-hydroxypropane
     5231-87-8 7693-46-1, 4-Nitrophenyl chloroformate
     41110-63-8 244076-90-2 244077-04-1
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of dendrimer oligosaccharides for treatment of bacterial
        dysentery)
IT
     63976-06-7P 244076-91-3P 244076-92-4P
     244076-93-5P 244076-94-6P 244076-95-7P
     244076-96-8P 244076-97-9P 244076-98-0P
     244076-99-1P 244077-00-7P 244077-01-8P
     244077-02-9P 244077-05-2P 244077-06-3P
     244077-08-5P 244077-09-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of dendrimer oligosaccharides for treatment of bacterial
        dysentery)
RE.CNT
        30
             THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Abbas, S; Sialic Acids Proc Japan-Germany Symp 1988, P22
(2) Altman, D; Practical Statistics for Medical Research 1st ed 1991, P179
(3) Amvam-Zollo; Carbohy Res 1986, V150, P199 HCAPLUS
(4) Anon; WO 93/08209 1993 HCAPLUS
(5) Armstrong; US 5620858 1997 HCAPLUS
(6) Armstrong; US 5679653 1997 HCAPLUS
(7) Armstrong; Infect Immun 1987, V55, P1294 HCAPLUS
(8) Armstrong; J Infect Dis 1991, V164, P1160 HCAPLUS
(9) Boyd; Nephron 1989, V51, P207 MEDLINE
(10) Calderwood; Proc Natl Acad Sci (USA) 1987, V84, P4364
(11) Chernyak, Y; Carbo Res 1984, V128, P269
(12) Cimolai; The Journal of Pediatrics 1990, V117, P676
(13) Cohen; J Biol Chem 1987, V262, P17088 HCAPLUS
(14) Cox; Carbohy Res 1978, V62, P245 HCAPLUS
(15) Dahmen, J; Carboh Res 1983, V118, P292 HCAPLUS
(16) Dahmen, J; Carboh Res 1984, V127, P15 HCAPLUS
(17) DeGrandis; J Biol Chem 1989, V264, P12520 HCAPLUS
(18) Ekborg, G; Carboh Res 1982, V110, P55 HCAPLUS
(19) Fernandez-Santana, V; J Carboh Chem 1989, V8(3), P531 HCAPLUS
(20) Frechet; US 5041516 1991 HCAPLUS
(21) Fugedi, P; Glycoconjugate J 1987, V4, P97 HCAPLUS
```

(22) Gannon; J Gen Microbiol 1990, V136, P1125 HCAPLUS

- (23) Gozzini; US 5807971 1998 HCAPLUS
- (24) Lemieux; US 4137401 1979 HCAPLUS
- (25) Lemieux; US 4238473 1980 HCAPLUS
- (26) Lemieux; US 4362720 1982 HCAPLUS
- (27) Margerum; US 5834020 1998 HCAPLUS
- (28) Ratcliffe; US 5079353 1992 HCAPLUS
- (29) Tomalia; US 5527524 1996 HCAPLUS
- (30) Tomalia; US 5714166 1998 HCAPLUS

IT 244077-03-0P 244077-07-4P 244094-61-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dendrimer oligosaccharides for treatment of bacterial dysentery)

RN 244077-03-0 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[(2-hydroxy-1,3-propanediyl)bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-B

PAGE 2-A

PAGE 2-B

RN 244077-07-4 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[[8-[(2-ethoxy-3,4-dioxo-1-cyclobuten-1-yl)amino]octyl]amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 2-A

PAGE 2-B

RN 244094-61-9 HCAPLUS

CN 1,8-Octanediamine (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_8-NH_2$

RN 492-61-5 HCAPLUS

CN .beta.-D-Glucopyranose (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 616-29-5 HCAPLUS

CN 2-Propanol, 1,3-diamino- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OH} \\ | \\ \text{H}_{2}\text{N}-\text{CH}_{2}-\text{CH}-\text{CH}_{2}-\text{NH}_{2} \end{array}$$

RN 5231-87-8 HCAPLUS

CN 3-Cyclobutene-1,2-dione, 3,4-diethoxy- (9CI) (CA INDEX NAME)

RN 7693-46-1 HCAPLUS

CN Carbonochloridic acid, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

RN 41110-63-8 HCAPLUS

CN .alpha.-D-Galactopyranosyl chloride, 2,3,4,6-tetrakis-O-(phenylmethyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244076-90-2 HCAPLUS

CN D-Glucose, 4-O-[6-O-(1-methoxy-1-methylethyl)-3,4-O-(1-methylethylidene)-.beta.-D-galactopyranosyl]-2,3:5,6-bis-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244077-04-1 HCAPLUS

CN .beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[(4-nitrophenoxy)carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-B

O Ph

PAGE 2-A

Ph_O

PAGE 2-B

```
IT
     63976-06-7P 244076-91-3P 244076-92-4P
     244076-93-5P 244076-94-6P 244076-95-7P
     244076-96-8P 244076-97-9P 244076-98-0P
     244076-99-1P 244077-00-7P 244077-01-8P
     244077-02-9P 244077-05-2P 244077-06-3P
     244077-08-5P 244077-09-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of dendrimer oligosaccharides for treatment of bacterial
        dysentery)
RN
     63976-06-7 HCAPLUS
     .beta.-D-Glucopyranoside, 2-propenyl 2,3,4,6-tetra-O-2-propenyl- (9CI)
CN
     (CA INDEX NAME)
```

Absolute stereochemistry.

RN 244076-91-3 HCAPLUS

CN D-Glucopyranose, 4-O-(3,4,6-tri-O-acetyl-2-O-2-propenyl-.beta.-D-galactopyranosyl)-, tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244076-92-4 HCAPLUS

CN .alpha.-D-Glucopyranosyl chloride, 4-O-(3,4,6-tri-O-acetyl-2-O-2-propenyl-beta.-D-galactopyranosyl)-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-93-5 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-(2-O-2-propenyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 244076-94-6 HCAPLUS

ž.

CN .beta.-D-Glucopyranoside, methyl 4-O-[4,6-O-[(S)-phenylmethylene]-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 244076-95-7 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 2,3,6-tris-O-(phenylmethyl)-4-O-[3-O-(phenylmethyl)-4,6-O-[(S)-phenylmethylene]-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

CN .beta.-D-Glucopyranoside, methyl 2,3,6-tris-O-(phenylmethyl)-4-O-[3-O-(phenylmethyl)-2-O-2-propenyl-.beta.-D-galactopyranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-97-9 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl 4-O-[6-O-benzoyl-3-O-(phenylmethyl)-2-O-2-propenyl-.beta.-D-galactopyranosyl]-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244076-98-0 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-6-O-benzoyl-3-O-(phenylmethyl)-2O-2-propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244076-99-1 HCAPLUS

ت

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-(phenylmethyl)-2-O-2propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-00-7 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-2-O-2propenyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-01-8 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-(2-hydroxyethyl)-3,6-bis-O(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 244077-02-9 HCAPLUS

CN .beta.-D-Glucopyranoside, methyl O-2,3,4,6-tetrakis-O-(phenylmethyl).alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-2-O-[2-[[(4nitrophenoxy)carbonyl]oxy]ethyl]-3,6-bis-O-(phenylmethyl)-.beta.-Dgalactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 2-A

RN 244077-05-2 HCAPLUS

.beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[(8-aminooctyl)amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-2,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-bis-O-(phenylmethyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tris-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

z".

PAGE 1-A

PAGE 2-A

PAGE 2-B

....OMe

Ph

PAGE 3-B

Ph

RN 244077-06-3 HCAPLUS

.beta.-D-Glucopyranoside, 2',2''''-O-[[2-[[[(8-aminoctyl)amino]carbonyl]oxy]-1,3-propanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[methyl O-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A

PAGE 1-B

PAGE 2-B

но

RN 244077-08-5 HCAPLUS

CN Acetic acid, [[3-[[2,3,4,6-tetrakis-O-[3-[(2-methoxy-2-oxoethyl)thio]propyl]-.beta.-D-glucopyranosyl]oxy]propyl]thio]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 244077-09-6 HCAPLUS

CN Acetamide, N-(2-aminoethyl)-2-[[3-[[2,3,4,6-tetrakis-O-[3-[[2-[(2-aminoethyl)amino]-2-oxoethyl]thio]propyl]-.beta.-D-glucopyranosyl]oxy]propyl]thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

NH2

NH2

```
ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2003 ACS
ΑN
     1999:238153 HCAPLUS
DN
     131:19206
TΙ
     Synthesis of neoglycoconjugate dendrimers
ΑU
     Tsvetkov, Dmitry E.; Cheshev, Pavel E.; Tuzikov, Alexander B.;
     Pazynina, Galina V.; Bovin, Nikolai V.; Rieben, Robert;
     Nifant'ev, Nikolay E.
     N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences,
CS
     Moscow, 117913, Russia
SO
     Mendeleev Communications (1999), (2), 47-50
     CODEN: MENCEX; ISSN: 0959-9436
PB
     Russian Academy of Sciences
DT
     Journal
LA
     English
CC
     33-4 (Carbohydrates)
     Section cross-reference(s): 15
     A series of polydentate dendritic neoglycoconjugates which contain 4, 8,
AB
     16, 32 B-disaccharide ligands were designed as probes to assess the
     influence of inter-ligand distance on binding to anti-B-disaccharide Igs.
     structure activity binding Ig neoglycoconjugate dendrimer synthesis;
ST
     neoglycoconjugate dendrimer synthesis disaccharide binding Ig
ΙT
     Polyamines
     Polyamines
     Polyamines
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (polyamide-, dendrimers; synthesis of neoglycoconjugate dendrimers and
        the influence of inter-ligand distance on binding to
        anti-B-disaccharide Igs)
ΙT
     Dendritic polymers
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (polyamide-polyamines; synthesis of neoglycoconjugate dendrimers and
        the influence of inter-ligand distance on binding to
        anti-B-disaccharide Igs)
IT
     Polyamides, preparation
     Polyamides, preparation
     Polyamides, preparation
```

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(polyamine-, dendrimers; synthesis of neoglycoconjugate dendrimers and the influence of inter-ligand distance on binding to anti-B-disaccharide Igs)

IT Structure-activity relationship

(synthesis of neoglycoconjugate dendrimers and the influence of

```
inter-ligand distance on binding to anti-B-disaccharide Igs)
IT
     Disaccharides
     Glycoconjugates
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (synthesis of neoglycoconjugate dendrimers and the influence of
        inter-ligand distance on binding to anti-B-disaccharide Igs)
ΙT
     Immunoglobulins
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (synthesis of neoglycoconjugate dendrimers and the influence of
        inter-ligand distance on binding to anti-B-disaccharide Igs)
IT
     26937-01-9DP, PAMAM, .alpha.-D-Gal(1.fwdarw.3)-.beta.-D-Gal
     terminated 26937-01-9P, PAMAM
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (dendritic; synthesis of neoglycoconjugate dendrimers and the influence
        of inter-ligand distance on binding to anti-B-disaccharide Igs)
ΙT
     96-33-3, Methyl acrylate 107-15-3, 1,2-Ethanediamine,
     reactions 124-09-4, 1,6-Hexanediamine, reactions
     32564-25-3 201667-63-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (synthesis of neoglycoconjugate dendrimers and the influence of
        inter-ligand distance on binding to anti-B-disaccharide Igs)
IT
     194867-28-2P 226408-71-5P 226408-74-8P
     226408-77-1P 226408-79-3P 226408-80-6P
     226408-84-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (synthesis of neoglycoconjugate dendrimers and the influence of
        inter-ligand distance on binding to anti-B-disaccharide Igs)
ΙT
     226408-73-7P 226408-81-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis of neoglycoconjugate dendrimers and the influence of
        inter-ligand distance on binding to anti-B-disaccharide Igs)
RE.CNT
              THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Aoi, K; Macromolecules 1995, V28, P5391 HCAPLUS
(2) Ashton, P; Chem Eur J 1996, V2, P1115 HCAPLUS
(3) Duncan, R; Proc Int Symp Control Rel Bioact Mater 1996, V23, P105
(4) Gitsov, I; J Am Chem Soc 1996, V118, P3785 HCAPLUS
(5) Gitsov, I; Macromolecules 1993, V26, P6536 HCAPLUS
(6) Korchagina, E; Bioorg Khim 1992, V18, P283 HCAPLUS
(7) Korchagina, E; Russ J Bioorg Chem 1992, V18, P153
(8) Koren, E; 2nd International Congress on Xenontransplantation, Transplant
    Proc 1994, V26, P1166 MEDLINE
(9) Lindhorst, T; Angew Chem Int Ed Engl 1996, V35, P1953 HCAPLUS
(10) Lindhorst, T; Glycoconj J 1998, V15, P605 HCAPLUS
(11) Mammen, M; Angew Chem Int Ed Engl 1998, V37, P2754
(12) Marquart, M; J Mol Biol 1980, V141, P369 HCAPLUS
(13) Newkome, G; Angew Chem Int Ed Engl 1998, V37, P307 HCAPLUS
(14) Newkome, G; Dendritic Molecules 1996
(15) Page, D; Bioconj Chem 1997, V8, P114
(16) Paul, L; Xenontransplantation 1991, P47
(17) Rieben, R; Xenontransplantation 1995, V2, P98
(18) Tomalia, D; Angew Chem Int Ed Engl 1990, V29, P138
(19) Tomalia, D; Macromolecules 1986, V19, P2466 HCAPLUS
(20) Zanini, D; Carbohydrate Mimics: Concepts and Methods 1998
(21) Zanini, D; J Am Chem Soc 1997, V119, P2088 HCAPLUS
(22) Zanini, D; J Org Chem 1996, V61, P7348 HCAPLUS
```

26937-01-9DP, PAMAM, .alpha.-D-Gal(1.fwdarw.3)-.beta.-D-Gal

```
terminated 26937-01-9P, PAMAM
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (dendritic; synthesis of neoglycoconjugate dendrimers and the influence
        of inter-ligand distance on binding to anti-B-disaccharide Igs)
RN
     26937-01-9 HCAPLUS
CN
     2-Propenoic acid, methyl ester, polymer with 1,2-ethanediamine (9CI)
                                                                            (CA
     INDEX NAME)
     CM
          1
     CRN 107-15-3
     CMF C2 H8 N2
H_2N - CH_2 - CH_2 - NH_2
          2
     CM
     CRN
         96-33-3
     CMF C4 H6 O2
MeO-C-CH=CH2
RN
     26937-01-9 HCAPLUS
     2-Propenoic acid, methyl ester, polymer with 1,2-ethanediamine (9CI) (CA
CN
     INDEX NAME)
     CM
          1
     CRN 107-15-3
     CMF C2 H8 N2
H_2N-CH_2-CH_2-NH_2
     CM
          2
     CRN 96-33-3
     CMF C4 H6 O2
    0
MeO-C-CH-CH2
ΙT
     96-33-3, Methyl acrylate 107-15-3, 1,2-Ethanediamine,
     reactions 124-09-4, 1,6-Hexanediamine, reactions
     32564-25-3 201667-63-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (synthesis of neoglycoconjugate dendrimers and the influence of
        inter-ligand distance on binding to anti-B-disaccharide Igs)
```

96-33-3 HCAPLUS

RN

CN 2-Propenoic acid, methyl ester (9CI) (CA INDEX NAME)

RN 107-15-3 HCAPLUS

CN 1,2-Ethanediamine (9CI) (CA INDEX NAME)

H2N-CH2-CH2-NH2

RN 124-09-4 HCAPLUS

CN 1,6-Hexanediamine (7CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_6-NH_2$

RN 32564-25-3 HCAPLUS

CN Hexanedioic acid, bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

RN 201667-63-2 HCAPLUS

CN .beta.-D-Galactopyranoside, 3-aminopropyl 3-O-.alpha.-D-galactopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 194867-28-2P 226408-71-5P 226408-74-8P 226408-77-1P 226408-79-3P 226408-80-6P

226408-84-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of neoglycoconjugate dendrimers and the influence of inter-ligand distance on binding to anti-B-disaccharide Igs)

RN 194867-28-2 HCAPLUS

12

CN .beta.-Alanine, N,N'-1,6-hexanediylbis[N-(3-methoxy-3-oxopropyl)-, dimethyl ester (9CI) (CA INDEX NAME)

RN 226408-71-5 HCAPLUS

CN Propanamide, 3,3',3'',3'''-(1,6-hexanediyldinitrilo)tetrakis[N-(2-aminoethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

— ин2

RN 226408-74-8 HCAPLUS

CN 4,7,11,18,22,25-Hexaazaoctacosanedioic acid, 11,18-bis[3-[[2-[bis(3-methoxy-3-oxopropyl)amino]ethyl]amino]-3-oxopropyl]-4,25-bis(3-methoxy-3-oxopropyl)-8,21-dioxo-, dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-B

RN 226408-77-1 HCAPLUS

CN 4,7,11,18,22,25-Hexaazaoctacosanediamide, N,N'-bis(2-aminoethyl)-4,25-bis[3-[(2-aminoethyl)amino]-3-oxopropyl]-11,18-bis[3-[(2-[bis[3-[(2-aminoethyl)amino]-3-oxopropyl]amino]ethyl]amino]-3-oxopropyl]-8,21-dioxo-(9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c} O \\ H_2N-CH_2-CH_2-NH-C-CH_2-CH_2 \\ H_2N-CH_2-CH_2-NH-C-CH_2-CH_2-N-CH_2-CH_2-NH-C-CH_2-CH_2-N \\ \\ O \\ \end{array}$$

PAGE 1-B

PAGE 2-B

RN 226408-79-3 HCAPLUS

CN 4,7,11,14,18,25,29,32,36,39-Decaazadotetracontanedioic acid,
11,32-bis[3-[[2-[bis(3-methoxy-3-oxopropyl)amino]ethyl]amino]-3-oxopropyl]18,25-bis[7-[3-[[2-[bis(3-methoxy-3-oxopropyl)amino]ethyl]amino]-3oxopropyl]-14-(3-methoxy-3-oxopropyl)-3,10,17-trioxo-18-oxa-4,7,11triazanonadec-1-yl]-4,39-bis(3-methoxy-3-oxopropyl)-8,15,28,35-tetraoxo-,
dimethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

PAGE 2-A

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{R2-CH}_2\text{--CH}_2\text{--C-OMe} \end{array}$$

$$\begin{matrix} & & & & \\ & & || \\ \text{R4-CH}_2\text{--CH}_2\text{--C--OMe} \end{matrix}$$

PAGE 3-A

PAGE 3-B

PAGE 4-A

PAGE 4-B

$$\begin{array}{c} \text{O} \\ || \\ \text{CH}_2-\text{CH}_2-\text{C-OMe} \\ | \\ --\text{CH}_2-\text{N-CH}_2-\text{CH}_2-\text{C-OMe} \\ || \\ \text{O} \end{array}$$

RN 226408-80-6 HCAPLUS

CN 4,7,11,14,18,25,29,32,36,39-Decaazadotetracontanediamide,
18,25-bis[20-amino-14-[3-[(2-aminoethyl)amino]-3-oxopropyl]-7-[3-[[2-[bis[3-[(2-aminoethyl)amino]-3-oxopropyl]amino]ethyl]amino]-3-oxopropyl]3,10,17-trioxo-4,7,11,14,18-pentaazaeicos-1-yl]-N,N'-bis(2-aminoethyl)4,39-bis[3-[(2-aminoethyl)amino]-3-oxopropyl]-10,32-bis[3-[[2-[bis[3-[(2-aminoethyl)amino]-3-oxopropyl]amino]ethyl]amino]-3-oxopropyl]-8,15,28,35tetraoxo-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

æ.

PAGE 1-C

NH2

NH2

PAGE 2-C

NH₂

RN 226408-84-0 HCAPLUS

CN Hexanoic acid, 6-[[3-[(3-O-.alpha.-D-galactopyranosyl-.beta.-D-galactopyranosyl)oxy]propyl]amino]-6-oxo-, 4-nitrophenyl ester (9CI) (CAINDEX NAME)

Absolute stereochemistry.

IT 226408-73-7P 226408-81-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of neoglycoconjugate dendrimers and the influence of inter-ligand distance on binding to anti-B-disaccharide Igs)

RN 226408-73-7 HCAPLUS

Ť.

CN 7,10,14,21,25,28-Hexaazatetratriacontanediamide, N,N'-bis[3-[(3-O-.alpha.D-galactopyranosyl-.beta.-D-galactopyranosyl)oxy]propyl]-14,21-bis[3-[[2[[6-[[3-[(3-O-.alpha.-D-galactopyranosyl-.beta.-Dgalactopyranosyl)oxy]propyl]amino]-1,6-dioxohexyl]amino]ethyl]amino]-3oxopropyl]-6,11,24,29-tetraoxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c}
R \\
N \\
N \\
N \\
H
\end{array}$$

$$\begin{array}{c}
CH_2 \\
4 \\
N \\
H
\end{array}$$

$$\begin{array}{c}
CH_2 \\
3 \\
0
\end{array}$$

PAGE 1-C

PAGE 2-B

RN 226408-81-7 HCAPLUS

CN Hexanediamide, N,N''-1,6-hexanediylbis[N'-[3-[(3-O-.alpha.-D-galactopyranosyl-.beta.-D-galactopyranosyl)oxy]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

HO HO HO HO HO HO HO
$$R$$
 R O R O

PAGE 1-B

L41 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:219739 HCAPLUS

DN 128:278972

42

TI Glycoconjugates as virus cell adhesion inhibitors

IN Bovin, Nikolai; Matrosovich, Mikhail; Tuzikov, Alexandr

```
; Chinarev, Alexandr; Gambaryan, Alexandra; Robertson, James
```

PA Syntesome Gesellschaft fuer Med. Biochemie m.b.H., Germany; Bovin, Nikolai; Matrosovich, Mikhail; Tuzikov, Alexandr; Chinarev, Alexandr; Gambaryan, Alexandra; Robertson, James

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM A61K047-48

CC 1-5 (Pharmacology)

Section cross-reference(s): 33

FAN.CNT 1

rAN.	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI	WO 9814215		19980409		WO 1997-EP5389	19971001
	WO 9814215	A 3	19980820			
•	W: CA, JP, U	US				
	RW: AT, BE,	CH, DE,	, DK, ES,	FI,	FR, GB, GR, IE, IT,	LU, MC, NL, PT, SE
	DE 19640791	A1	19980416		DE 1996-19640791	19961002
	EP 863769	Αŀ	19980916		EP 1997-948758	19971001
	EP 863769	B1	20020703			
	R: AT, BE,	CH, DE,	, FR, GB,	IT,	LI	
	JP 2002514186	T2	20020514		JP 1998-516240	19971001
	AT 219947	E	20020715		AT 1997-948758	19971001
PRAI	DE 1996-19640791	Α	19961002			
	WO 1997-EP5389	W	19971001	•		
os	MARPAT 128:278972	2				•
GI						

The host-cell adhesion by human influenza viruses is inhibited by 6'-sialyl-N-acetyllactosamine conjugates [I; R1, R3 = acyl, thioacyl; R2 = H, OH, ZA; A = (substituted) alkyl, (substituted) aryl; Z = O, S, NH; R4 = H, acyl; X = O, S, C1-4 alkylene; W = bifunctional spacer; P = multivalent carrier [polyacrylate, (N-substituted) polyacrylamide, (N-substituted) methacrylamide, poly(acrylic acid), polycarbonate, polyester, polyamide, polyanhydride, polyiminocarbonate, poly(ortho ester), polydioxanone, polyphosphazene, poly(hydroxy carboxylic acid), poly(amino acid), polysaccharide, protein, dextran, chitosan, glucan, liposomes, microparticles]]. I can bind to human influenza A (H1 and H3) and B viruses which have not been adapted by culturing in chicken eggs and therefore have an unaltered structure of the receptor-binding site on the

Ι

viral hemagglutinin; they are useful prophylactically and therapeutically against influenza virus infections. Thus, 6'-sialyl-N-acetyllactosamine ammonium salt was converted to its N-glycyl deriv. (II) by reaction with chloroacetic anhydride. Poly(4-nitrophenyl acrylate) was 20% substituted with II by reaction with II and ethanolamine to form II-substituted poly[N-(2-hydroxyethyl)acrylamide]. The affinity const. of this polymer conjugate for all strains of influenza A and B virus tested was in the range 0.01-0.1 .mu.M, as detd. by its inhibition of viral binding to fetuin.

ST virus cell adhesion inhibitor sialylacetyllactosamine deriv

IT Cell adhesion

(by viruses; glycoconjugates as virus cell adhesion inhibitors)

IT Liposomes

Microparticles

(conjugates with sialylacetyllactosamine; glycoconjugates as virus cell adhesion inhibitors)

IT Polyamides, biological studies

Polyanhydrides

Polycarbonates, biological studies

Polyesters, biological studies

Polyphosphazenes

Polysaccharides, biological studies

Proteins, general, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates with sialylacetyllactosamine; glycoconjugates as virus cell adhesion inhibitors)

IT Animal virus

Antiviral agents

Influenza virus

(glycoconjugates as virus cell adhesion inhibitors)

IT Glycoconjugates

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(glycoconjugates as virus cell adhesion inhibitors)

IT Carboxylic acids, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hydroxy, polymers, conjugates with sialylacetyllactosamine; glycoconjugates as virus cell adhesion inhibitors)

IT Hemagglutinins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(of influenza virus, binding of; glycoconjugates as virus cell adhesion inhibitors)

IT Esters, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ortho acid, polymers, conjugates with sialylacetyllactosamine; glycoconjugates as virus cell adhesion inhibitors)

IT Polyamides, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(poly(amino acids), conjugates with sialylacetyllactosamine; glycoconjugates as virus cell adhesion inhibitors)

IT Receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

```
(virus binding to, inhibition of; glycoconjugates as virus cell
        adhesion inhibitors)
     78969-47-8, 6'-Sialyl-N-acetyllactosamine
ΙT
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (carrier conjugates; glycoconjugates as virus cell adhesion inhibitors)
IT
    31621-87-1, Polydioxanone
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (conjugates with sialylacetyllactosamine; glycoconjugates as virus cell
        adhesion inhibitors)
    75455-20-8DP, conjugates with sialylacetyllactosamine
TΤ
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (glycoconjugates as virus cell adhesion inhibitors)
    79-10-7D, 2-Propenoic acid, esters, polymers, conjugates with
    sialylacetyllactosamine, biological studies 79-41-4D, esters,
    polymers, conjugates with sialylacetyllactosamine 463-77-4D,
    Carbamic acid, esters, polymers, conjugates with sialylacetyllactosamine,
    biological studies 6703-56-6D, Carbonimidic acid, esters,
    polymers, conjugates with sialylacetyllactosamine 9003-01-4D,
    conjugates with sialylacetyllactosamine 9003-05-8D,
    Polyacrylamide, conjugates with sialylacetyllactosamine 9004-54-0D
     , Dextran, conjugates with sialylacetyllactosamine, biological studies
     9012-72-0D, Glucan, conjugates with sialylacetyllactosamine
     9012-76-4D, Chitosan, conjugates with sialylacetyllactosamine
    25014-12-4D, Polymethacrylamide, conjugates with
    sialylacetyllactosamine 31621-87-1D, Polydioxanone, conjugates
    with sialylacetyllactosamine
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (glycoconjugates as virus cell adhesion inhibitors)
    541-88-8, Chloroacetic anhydride 3655-05-8
     4742-00-1, Tetrakis(aminomethyl)methane 29248-48-4
    32564-25-3, Bis(4-nitrophenyl) adipate 67391-52-0,
     Poly(4-nitrophenyl acrylate) 205753-11-3
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (glycoconjugates as virus cell adhesion inhibitors)
    205753-09-9P 205753-10-2P
ΙT
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (glycoconjugates as virus cell adhesion inhibitors)
    151704-01-7P 205753-07-7P 205830-65-5P
ΙT
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (glycoconjugates as virus cell adhesion inhibitors)
ΙT
     78969-47-8, 6'-Sialyl-N-acetyllactosamine
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (carrier conjugates; glycoconjugates as virus cell adhesion inhibitors)
RN
     78969-47-8 HCAPLUS
CN
     D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-
     qalactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX
     NAME)
```

Absolute stereochemistry.

ď.

IT 31621-87-1, Polydioxanone

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates with sialylacetyllactosamine; glycoconjugates as virus cell adhesion inhibitors)

RN 31621-87-1 HCAPLUS

CN Poly[oxy(1-oxo-1,2-ethanediyl)oxy-1,2-ethanediyl] (9CI) (CA INDEX NAME)

TT 75455-20-8DP, conjugates with sialylacetyllactosamine RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(glycoconjugates as virus cell adhesion inhibitors)

RN 75455-20-8 HCAPLUS

CN 2-Propenamide, N,N-bis(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 10196-26-6 CMF C7 H13 N O3

T79-10-7D, 2-Propenoic acid, esters, polymers, conjugates with sialylacetyllactosamine, biological studies 79-41-4D, esters, polymers, conjugates with sialylacetyllactosamine 463-77-4D,

```
Carbamic acid, esters, polymers, conjugates with sialylacetyllactosamine,
     biological studies 6703-56-6D, Carbonimidic acid, esters,
     polymers, conjugates with sialylacetyllactosamine 9003-01-4D,
     conjugates with sialylacetyllactosamine 9003-05-8D,
     Polyacrylamide, conjugates with sialylacetyllactosamine 9004-54-0D
     , Dextran, conjugates with sialylacetyllactosamine, biological studies
     9012-72-0D, Glucan, conjugates with sialylacetyllactosamine
     9012-76-4D, Chitosan, conjugates with sialylacetyllactosamine
     25014-12-4D, Polymethacrylamide, conjugates with
     sialylacetyllactosamine 31621-87-1D, Polydioxanone, conjugates
     with sialylacetyllactosamine
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (glycoconjugates as virus cell adhesion inhibitors)
RN
     79-10-7 HCAPLUS
     2-Propenoic acid (9CI) (CA INDEX NAME)
CN
HO-C-CH \longrightarrow CH_2
RN
     79-41-4 HCAPLUS
CN
     2-Propenoic acid, 2-methyl- (9CI) (CA INDEX NAME)
   CH<sub>2</sub>
Me-C-CO2H
RN
     463-77-4 HCAPLUS
     Carbamic acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
CN
HO-C-NH2
RN
     6703-56-6 HCAPLUS
CN
     Carbonimidic acid (9CI) (CA INDEX NAME)
   NH
HO- C- OH
     9003-01-4 HCAPLUS
RN
     2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)
CN
     CM
          1
     CRN
          79-10-7
     CMF
          C3 H4 O2
```

۳.

Poly(4-nitrophenyl acrylate) 205753-11-3

541-88-8 HCAPLUS

RN

RL: RCT (Reactant); RACT (Reactant or reagent)

(glycoconjugates as virus cell adhesion inhibitors)

CN Acetic acid, chloro-, anhydride (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

RN 3655-05-8 HCAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]-, 4-nitrophenyl ester (9CI) (CA INDEX NAME)

RN 4742-00-1 HCAPLUS

CN 1,3-Propanediamine, 2,2-bis(aminomethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2-\text{NH}_2 \\ | \\ \text{H}_2\text{N}-\text{CH}_2-\text{C}-\text{CH}_2-\text{NH}_2 \\ | \\ \text{CH}_2-\text{NH}_2 \end{array}$$

RN 29248-48-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-[[N-[(1,1-dimethylethoxy)carbonyl]glycylglycyl]oxy]- (9CI) (CA INDEX NAME)

RN 32564-25-3 HCAPLUS

CN Hexanedioic acid, bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

RN 67391-52-0 HCAPLUS

CN 2-Propenoic acid, 4-nitrophenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2123-85-5 CMF C9 H7 N O4

$$O = C - CH = CH_2$$

$$O_2N$$

RN 205753-11-3 HCAPLUS

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-, ammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 205753-09-9P 205753-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(glycoconjugates as virus cell adhesion inhibitors)

RN 205753-09-9 HCAPLUS

CN 2,5,9,12-Tetraazatridecanedioic acid, 7,7-bis[[[[[(1,1-dimethylethoxy)carbonyl]amino]acetyl]amino]methyl]-4,10-dioxo-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

RN 205753-10-2 HCAPLUS

CN Glycine, N-[(1,1-dimethylethoxy)carbonyl]glycylglycyl-, tetraamide with 2,2-bis(aminomethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

IT 151704-01-7P 205753-07-7P 205830-65-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (glycoconjugates as virus cell adhesion inhibitors)

RN 151704-01-7 HCAPLUS

CN Acetamide, N-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-2-amino- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 205753-07-7 HCAPLUS

:-

CN Hexanoic acid, 6-[[2-[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]amino]-2-oxoethyl]amino]-6-oxo-, 1-(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***